MONTHLY NOTICES

OF THE

ROYAL ASTRONOMICAL SOCIETY.

VOL. LXVIII. MARCH 13, 1908. No. 5

H. F. NEWALL, Esq., M.A., F.R.S., PRESIDENT, in the Chair.

Frederic Hermann Albert Alfred Buss, 2 Lansdowne Terrace, Grosvenor Square, Ashton-on-Mersey, near Manchester;
Arthur du Pré Denning, M.Sc., Ph.D., Birmingham University, and 18 Lightwoods Hill, Birmingham;
Herbert Shaw, A.R.C.S., Royal College of Science, South Kensington, and 6 Gowan Avenue, Fulham, S.W.; and
James Henry Worthington, Student in the University of Oxford, Bindon, Wellington, Somerset,

were balloted for and duly elected Fellows of the Society.

The following candidates were proposed for election as Fellows of the Society, the names of the proposers from personal knowledge being appended:—

Captain Richard Algernon Craigie Daunt, D.S.O., Lynalta, Newtownards, Co. Down, Ireland (proposed by Rev. A. L. Cortie); and
Edgar Odell Lovett, Ph.D., Professor of Astronomy, Princeton University, New Jersey, U.S.A. (proposed by J. W. L. Glaisher).

One hundred and four presents were announced as having been received since the last meeting, including, amongst others:—

M. Jarry-Desloges, Observations des surfaces planétaires, fasc. 1, presented by the author; E. W. Maunder, The Astronomy of the Bible, presented by the author; C. H. F. Peters, Heliographic positions of Sun-spots, 1860–1870, edited by Professor Frost, pre-

sented by the Carnegie Institution; J. A. Repsold, Geschichte der Astronomischen Messwerkzeuge, presented by Mr. Franklin-Adams; E. B. H. Wade, Field method of determining longitudes by observations of the Moon, presented by the Egyptian Survey Department.

Astrographic Chart; 32 charts, presented by the Royal Observatory, Greenwich; 20 charts, from Algiers and Paris Observatories, presented by the French Government; and 20 charts, presented by the San Fernando Observatory.

Series of 36 collotype reproductions of photographs of the Milky Way, etc., presented by Professor E. E. Barnard; photograph of the Nebula in Orion (transparency) from negative taken by Professor Perrine with the Crossley reflector, presented by the Lick Observatory.

A suggested explanation of the ancient Jewish Calendar Dates in the Aramaic Papyri translated by Professor A. H. Sayce and Mr. A. E. Cowley. By E. B. Knobel.

The Aramaic papyri discovered at Assuan, on the site of the ancient Syene, which have been recently translated and published by Professor Sayce and Mr. Cowley, are of unique interest and importance owing to the duplicate dates given to each document. These documents cover a large part of the fifth century B.C., extending from B.C. 471, nine years only after the battle of Salamis, to B.C. 410. The papyri all relate to a Hebrew colony established at that period at Syene, and deal with rights of property, conveyance of land and buildings, marriage portions, and legal processes. They are all deeds most carefully drawn, signed, sealed, and witnessed, and they are dated according to both the Egyptian and Hebrew calendars, in the regnal years of the kings of Persia.

The Egyptian year and calendar are well understood. The year was a vague solar year, and consisted of 365 days without intercalation or correction, consequently the Julian date of the commencement of the Egyptian year recedes one day every four years. The year consisted of twelve months, each of thirty days, and five additional days, called *epagomenæ*, were added after the last month. There is consequently no difficulty with this calendar in determining the corresponding Julian date.

Very little, however, is known of the Jewish calendar in use at the period under consideration. The present reformed calendar dates only from the time of Hillel in the fourth century A.D., though it was probably not finally settled until after the fifth century. It is known that in olden times the year was a lunar year, and certain months, and ordinances connected with the months and seasons, are mentioned in the Old Testament. There is no mention of an intercalary month in the Bible, and it is not